Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
The Boeing Company	)	File No. SAT−LOA−20161115−00109
	)	
Application for Authority to Launch and Operate a Non-Geostationary Satellite Orbit System in the Fixed-Satellite Service, Mobile-Satellite Service, and Earth-Exploration Satellite Service	)	

PETITION TO DENY

In the above-captioned "Application," The Boeing Company ("Boeing") seeks a license for a planned non-geostationary satellite orbit ("NGSO") satellite system.[1] Telesat Canada ("Telesat") files this Petition to Deny for the reasons set out below.

The frequencies proposed by Boeing for its operations overlap with the following frequency bands Innovation, Science and Economic Development Canada ("ISED") has authorized Telesat to use for its NGSO network: 17.8-18.6 GHz, 18.8-19.3 GHz, and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30.0 GHz (Earth-to-space).[2]

Boeing's NGSO system would interfere with Telesat's NGSO operations because the two systems would operate in overlapping geographical areas on overlapping Ka-

[1] *See Public Notice*, *Applications Accepted For Filing, Cut-Off Established for Additional NGSO-Like Satellite Applications or Petitions For Operations in the 12.75-13.25 GHz, 13.85-14.0 GHz, 18.6-18.8 GHz, 19.3-20.2 GHz, and 29.1-29.5 GHz Bands*, DA 17-524, File No. SAT-LOI-20161115-00121 (May 26, 2017).
[2] Telesat Approvals in Principle, ISED file 3150-1 (557203 AT) dated June 26, 2015, and ISED file 3150-1 (565832 SS) dated June 26, 2015, for the 27.5 – 29.1, 29.5 – 30, 17.8 – 19.3, and 19.7 – 20.2 GHz bands.

band frequencies. Because Boeing's NGSO system would interfere with Telesat's NGSO operations, Telesat hereby opposes Boeing's Application.[3]

Boeing's acknowledges the potential of in-line interference events with other NGSO operators and states that it "will develop appropriate coordination agreements or design its system to follow the default procedure, as necessary."[4] Under the default procedure cited by Boeing, now under review by the Commission in its rulemaking, absent coordination agreements, NGSO operators would be required to divide their spectrum equally during in-line interference events, with such events deemed to exist, regardless of the actual interference being suffered, based upon a fixed ten degree avoidance angle.[5]

As demonstrated by Telesat in its filings in connection with the Commission's pending *NGSO NPRM*, however, these mechanisms are unworkable.[6] No single avoidance angle will address in-line interference events. For any specific interference level, there will be a wide variety of angles that vary based on the ever-changing

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[3]Telesat is filing this Petition to Deny to preserve its rights. Telesat recognizes that the Commission is still developing rules to address constellations of NGSO-like satellites and has stated that applicants will be given an opportunity to amend their filings to conform to the new requirements. *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters,* Notice of Proposed Rulemaking, *31 FCC Rcd 13651 (2016)* ("*NGSO NPRM*"). Telesat also recognizes that if Boeing's Application is granted before the Commission's rulemaking is completed, the Application likely will be conditioned on the outcome of the rulemaking, as was done with OneWeb's application. *See WorldVu Satellites Limited, Petition for a Declaratory Ruling Granting Access to the U.S. Market for the OneWeb NGSO FSS System,* IBFS File No. SAT-LOI-20160428-00041 (rel. June 23, 2017) ("*OneWeb Grant*"), at ¶¶ 12 and 26. If the rules the Commission adopts or a future Boeing amendment resolve Telesat's interference concerns, it will withdraw its objection.

[4] Boeing Application at 30 (footnote omitted).

[5] *See* 47 C.F.R. § 25.261(c).

[6] *See Comments of Telesat Canada*, *NGSO NPRM*, at 6-15 (Feb. 27, 2017); *Reply Comments of Telesat Canada*, *NGSO NPRM,* at 4-12.

relative positions of satellites and ground terminals. Relying on these default procedures, therefore, would expose Telesat's operations to harmful interference.

Boeing's Application is silent on the subject of ITU priority. Boeing offers no recognition that the Canadian ITU filings that are associated with Telesat's NGSO system have date priority over later ITU filings that may be associated with Boeing's system.[7]

In granting OneWeb's NGSO application, the Commission recognized that "[c]ompliance with ITU coordination procedures is a requirement of the ITU Radio Regulations, which hold the force of treaty to which the United States is a party," and that "[s]uch compliance is a typical condition of both U.S. space station licenses and grants of U.S. market access."[8] Based on this requirement, and in response to concerns raised by Telesat, the Commission conditioned the grant of OneWeb's NGSO application on compliance with ITU requirements.[9] The same considerations apply here, and so the same condition should apply to any grant of Boeing's Application.

In view of the potential for Boeing's system to interfere with Telesat's NGSO operations, Boeing's Application should not be granted in its present form. At a minimum, any grant should be conditioned on the outcome of the NGSO rulemaking, as the Commission did in granting OneWeb's NGSO application.[10] Finally, in

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[7] *See* COMMSTELLATION network published as CR/C/3313 and CR/C/3313 MOD-2, and CANPOL-2 network published as CR/C/3474 MOD-1.
[8] *OneWeb Grant*, n. 35.
[9] *OneWeb Grant*, ¶ 23(a).
[10] *OneWeb Grant*, ¶¶ 12 and 26.

recognition of U.S. treaty obligations, any grant should be conditioned on compliance with ITU requirements.

Respectfully submitted,

TELESAT CANADA

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June 26, 2017

CERTIFICATE OF SERVICE

I hereby certify that on this 26th day of June, 2017, a copy of the foregoing Petition to Deny was sent by electronic mail to the following:

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/s/
Katia Carty